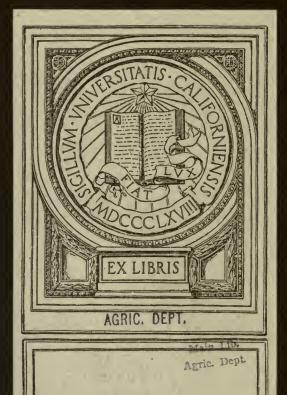
5 537 C3A5 Announcement of Correspondence Courses in Agriculture

W.G. Hummel







# ANNOUNCEMENT OF CORRESPONDENCE COURSES IN AGRICULTURE

BERKELEY

By W. G. HUMMEL

The College of Agriculture of the University of California announces correspondence courses in agriculture to be given under the direction of the Division of Agricultural Education.

These courses are designed for farmers, or persons expecting to live on the farm, who desire specific and detailed information regarding the production of certain farm crops or animals.

They are prepared by members of the faculty of the College of Agriculture with special reference to agricultural conditions in California and to the farming methods that apply in the various sections of the State. In the present announcement twenty-nine courses are listed and described briefly. Other courses will be prepared when the need and demand for them become apparent.

Each course deals with a special type of farming—as dairy husbandry, or alfalfa culture,—with the purpose of giving in concise form the information needed by a person engaging in that particular branch of farming. It is assumed that the student has no knowledge of the subject to be studied and that he desires a practical working knowledge of it. Subjects will therefore not be treated technically, but will be presented in simple and direct language, easy to understand.

There will be no course attempting to cover the general principles of agriculture. It is believed that it will be more helpful to students to give specific information with regard to the various farming enterprises, rather than to deal with generalized considerations regarding agriculture. But the basic principles of agriculture will be presented, explained, or their application noted wherever need arises in connection with the study of the special agricultural industries.

Each course will consist of approximately fourteen lessons, which will take up in detail the culture of a given crop or the care and management of a type or breed of livestock. Questions intended to bring out the main points covered in each lesson or to call attention to related agricultural facts practices, or methods, will accompany each lesson.

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It will, obviously, be impossible in the lessons to cover fully in each case local conditions in the different sections of the State with regard to a given agricultural industry. But it is desired that students ask questions regarding personal or community problems and as to any points in the lessons or with regard to the subject studied which are not clear to them. These will be answered as helpfully as possible by the persons giving the courses.

In some of the lessons reference will be made to authoritative books dealing with the topics under consideration. In many cases these books will be found in the local public library. If not obtainable there, the librarian will in most cases be able to give information as to where they can be secured. The state librarian and many county and city librarians have signified their desire to be of assistance in promoting the work of correspondence courses and in aiding students taking the courses. Where a needed book is not in the local library it will frequently be possible for the librarian to secure its loan from some other library.

As an aid to students taking correspondence courses, study clubs will be formed in various localities. These will bring correspondence students together and encourage a spirit of mutual improvement among them. In addition, it may occasionally be possible for a University lecturer to meet with the clubs for the purpose of furthering their work.

No charges will be made for the agricultural correspondence courses. All that the University asks is that the work be taken up in all earnestness and that the student pursue it with diligence that he may receive the greatest benefits from it.

#### HOW TO ENROLL AND PROCEED WITH WORK

Fill out and return the accompanying application card, or make written application to the Division of Agricultural Education of the College of Agriculture, Berkeley, California, for enrollment in the courses desired.

Two lessons will be sent to each student as soon as enrolled in a course, with questions upon each lesson. On completing the first lesson, send in answers to the questions and begin work on the second lesson. A third lesson will be mailed after receipt of answers to questions on lesson one, with corrections of the same. On receipt of answers to questions on lesson two, a fourth lesson will be sent, and so on to the end of the course, the student being constantly supplied with a lesson to be studied.

Students are requested to write with ink and to use regular lettersize paper similar to that on which the questions are printed as far as possible. Care and neatness should be observed in preparing work to be sent in as it will greatly facilitate the correction of papers.

#### WHEN COURSES WILL BE READY

The following courses are now ready: Courses numbered 1, 14, 15, 21, 23, 24.

October 1: Courses numbered 4, 8, 10, 11, 17.

November 1: Courses numbered 5, 26, 29.

December 1: Courses numbered 22, 27.

January 1, 1914: Courses numbered 2, 6, 7, 9, 18, 28.

February 1, 1914: Course numbered 25.

March 1, 1914: Courses numbered 3, 12, 13.

Courses numbered 16, 19, 20 will be completed as soon as possible.

# COURSES OFFERED

# COURSE 1. ALFALFA CULTURE

Prepared by B. A. Madson, Assistant Professor of Agronomy.

The course on alfalfa is designed to be of practical aid to the man who desires to grow the crop. It will acquaint him with the habits of the plant and with the characteristics and habits of the different varieties, thus enabling him to select the type best adapted to his particular conditions. An endeavor has been made in the course to bring together in brief form the best available information on the preparation of the field for alfalfa, the treatment of the soil, irrigation, culture, harvesting and improvement of the crop.

# COURSE 2. BEAN CULTURE

Prepared by J. W. GILMORE, Professor of Agronomy.

This course describes the different types and varieties of beans adapted to this State. Beans are considered both as a garden and as a field crop and specific directions are given for methods of culture and of harvesting the crop.

#### COURSE 3. CORN CULTURE

Prepared by B. A. Madson, Assistant Professor of Agronomy.

Although corn is the most important cereal crop in the United States today, it is not grown as extensively as either wheat or barley. Both as a grain and forage plant, however, there are conditions where corn is much to be preferred to either of the other cereals. In the course on corn, the conditions necessary for its production, the varieties best adapted to use in this State, and approved methods of culture, handling and improvement are briefly discussed. A study of the course should enable corn growers to increase their acre yields.

# COURSE 4. POTATO CULTURE

Prepared by J. W. GILMORE, Professor of Agronomy.

The importance of the potato as a garden and as a field crop calls for lessons on its culture useful to both the beginner in potato-growing and to the practical grower who wishes to increase his yields and profits. That there is much to be known about growing the American tuber is shown by the small average yield in the United States of 83 bushels per acre. Many potato growers raise 400 or more bushels per acre. The chief varieties adapted to California conditions are considered in the course, together with methods of securing and maintaining new varieties. Practical problems of planting, cultivation, irrigation and the harvesting and handling of the crop are taken up in detail.

#### COURSE 5. ONION CULTURE

Prepared by S. S. Rogers, Instructor in Plant Pathology

The varieties of onions and the various phases of onion culture are considered with reference to California conditions, special attention being given to soils suitable for onions. While questions dealing with the planting, cultivation, protection from disease, and general care of the crop will be emphasized, the harvesting and marketing of the crop will be given considerable attention.

#### COURSE 6. WHEAT CULTURE

Prepared by B. A. Madson, Assistant Professor of Agronomy.

In the course on wheat culture, an effort has been made to set forth as clearly as possible, the general characteristics of the different varieties of wheat grown in this State, and their adaptability to the various localities, as well as the best known method of culture and improvement. The enormous decrease in the production of wheat in California in the past few years may be attributed largely to improper methods of culture, rather than to a decrease in the fertility of the soil. Demonstrations have clearly shown that by application of proper tillage methods, wheat can be grown as successfully today as at any previous time.

In this course only such methods are included as have proven to be of positive value in increasing the yield of the crop.

#### COURSE 7. OAT CULTURE

Prepared by B. A. Madson, Assistant Professor of Agronomy.

Oats as a crop are grown to some extent in California with varying degrees of success. While it is not on the whole as well adapted to the climatic conditions in this State as either wheat or barley, yet under certain conditions it fills an important place, both as a grain and as a forage crop. This course is designed to acquaint the grower with the limitations of the plant, as well as to familiarize him with the varieties best adapted to California conditions and the best known methods of handling the crop.

#### COURSE 8. BARLEY CULTURE

Prepared by B. A. Madson, Assistant Professor of Agronomy.

The aim of the course on barley is to familiarize the grower with the requirements of the crop, and with the adaptability of the various types and varieties to California conditions. In spite of the fact that barley is the leading cereal in California today, the returns in many instances are hardly sufficient to pay the cost of production. There is no doubt that yields might in many instances be greatly increased by improved methods of culture. In these lessons an attempt has been made to set forth in brief outline the best known method of culture, handling and improvement of the crop. All questionable theories and practices have been eliminated, and such only are advocated as have proven of value in increasing the yield and quality of the crop.

# COURSE 9. RICE CULTURE

Prepared by B. A. Madson, Assistant Professor of Agronomy.

Rice culture in California is still in the experimental stage. As yet but little is known of the possibilities of the industry when attempted on a large scale. The course in rice production is designed to acquaint the person who desires to grow the crop with the habits of the plant, the conditions necessary to its production, and with approved methods of culture, harvesting and improvement. Its aim is to be of practical aid to the prospective grower.

#### COURSE 10. DAIRY HUSBANDRY

Prepared by G. H. True, Professor of Animal Husbandry, and L. M. Davis, Assistant Professor of Dairy Industry.

The dairy husbandry course is intended to be such that it is readily comprehended by any interested student, but not too elementary for the practical dairyman.

The first part of the course deals with the animal side of dairying, with reference to selection, breeding, and feeding of dairy stock, types of dairy barns and the production of milk. The second part takes up the handling of the milk after drawn and the disposal of same as market milk, cream, butter or cheese. Nature and source of contamination, care of dairy utensils, approved methods of cooling and bottling milk, separation and handling of cream, the details of buttermaking and cheesemaking, and dairy equipment are specific points considered. Testing of dairy products and the application of the Babcock test to individual dairy cows will be important points discussed. The course is so planned as to present to those interested in dairying the important features of the business.

# COURSE 11. SWINE HUSBANDRY

Prepared by J. I. THOMPSON, Assistant Professor of Animal Husbandry.

This course deals in a practical way with the various types and breeds of swine, their selection and breeding, care, feeding, and general management. To give the information necessary for profitable pork production is the main object of the course.

# COURSE 12. SHEEP HUSBANDRY

Prepared by G. H. TRUE, Professor of Animal Husbandry.

Sheep are considered in this course from the standpoint of the farm as well as the range, and from the standpoint of mutton production as well as that of production of wool. This involves a discussion of types and breeds, and the breeding and general care and feeding of sheep.

#### COURSE 13. BEEF HUSBANDRY

Prepared by G. H. TRUE, Professor of Animal Husbandry.

This course discusses the beef type of cattle and the breeds of beef cattle important to California with methods of building up and improving beef herds. Those methods and practices which promise the best type of beef animal and secure the greatest profits are briefly reviewed, special attention being given to practical questions of feeding and general care and management.

#### COURSE 14. POULTRY HUSBANDRY

Prepared by J. E. Dougherty, Assistant Professor of Poultry Husbandry.

The aim of the course in poultry husbandry is to give a clear, working knowledge of the subject in as practical and concise a manner as possible. The characteristics of the more important poultry varieties will receive attention, but most emphasis will be placed upon such practical questions as hatching and rearing of chicks, the underlying principles of feeding and breeding and the general management of the poultry plant.

#### COURSE 15. BEE-KEEPING

Prepared by C. W. Woodworth, Professor of Entomology.

It is the aim of this course to cover actual work with bees, giving directions whereby the student can discover by observation the significant facts regarding the structure, habits and life-history of bees, and particularly those facts most related to the production of honey.

The course is a practical one, dealing with the production of both extracted and comb honey. The student should learn from it enough to enable him to handle bees intelligently. The aim is to have the student actually study the bees, rather than study about them.

#### COURSE 16. APPLE CULTURE

The course in apple culture is designed to meet the needs of those who desire to grow apples for profit under California conditions. The requirements of the crop as to climate and soil will be taken up with a consideration of important varieties and their adaptation to the various apple-growing districts of the State. Some attention will be given to methods of propagation and improvement of varieties, but the main purpose of the course is to consider how to grow better apples, and the problems of planting, pruning, irrigation, cultivation, and control of pests will be taken up more fully. The problems connected with harvesting and marketing will be emphasized and the utilization of by-products given attention.

#### COURSE 17. PEAR CULTURE

Prepared by R. E. Smith, Professor of Plant Pathology.

This course presents a good, practical treatise on pears from the nursery bench to the fruit stand. The control of fire blight, and the marketing of the crop are topics which receive special attention. There are great possibilities in pears for the intelligent grower who is willing to study and practice up-to-date methods, as the blight has taken the crop from the careless farmer.

#### COURSE 18. PEACH CULTURE

Prepared by W. T. CLARKE, Professor of Agricultural Extension and Superintendent of Farmers' Institutes and R. H. Taylor, Instructor in Pomology.

There are many favored districts in California where nature will reward abundantly those who apply intelligent effort toward producing peaches of high grade for the market. The course in peach culture covers those details of pruning, thinning, picking and packing which are so essential to success, as well as the general questions of planting, irrigation and cultivation. Special attention is given to marketing methods, canning, drying and ways of utilizing by-products.

# COURSE 19. PLUM CULTURE

The plum as grown in California merits a place among the best of fruits. The various types and varieties of plums are reviewed in this course, together with general problems of growing and handling the crop. Commercial prune production is given special attention.

#### COURSE 20. CHERRY CULTURE

This course is prepared for those who wish to know more of this popular fruit. It discusses the splendid new varieties, the methods used by nurserymen in producing different types of trees, the conditions under which the various types thrive best, and how to plant, prune, irrigate, and cultivate to produce the finest fruit. Those who are growing cherries and have trouble in handling the crop will get good suggestions from this course. The prospective grower will find it a valuable guide.

# COURSE 21. WALNUT CULTURE

Prepared by R. E. SMITH, Professor of Plant Pathology.

The aim of this course is to give instruction in walnut culture in the modern and somewhat changed aspects which the subject now presents. Until very recently, all the walnut acreage of California consisted of seedling trees in the southern part of the State. Recent developments have consisted in the planting of grafted rather than seedling trees, and in the extension of the industry in the State towards the north. These conditions have brought into prominence new and partially unsolved questions relating to character and selection of varieties, choice of root stocks, methods of propagation, adaptation to localities, and other important considerations, all of which are fully considered in this course. The walnut has possibilities in the horticultural development of California far beyond the present status and extent of the industry.

#### COURSE 22. ALMOND CULTURE

Prepared by W. T. CLARKE, Professor of Agricultural Extension and Superintendent of Farmers' Institutes and R. H. TAYLOR, Instructor in Pomology.

The requirements of the almond in regard to soil and climate are considered, with the adaptation of different varieties to various California conditions. The planting, pruning, cultivation and general care of the crop are treated in a simple, practical way. The handling and marketing of the crop receive attention.

#### COURSE 23. GRAPE-GROWING

Prepared by F. T. BIOLETTI, Professor of Viticulture and Enology.

This course is intended primarily for two classes of students. First, for those who know little or nothing of the subject but who intend to engage in the industry and wish to do the work well and avoid expensive mistakes. Second, for those who are already growing grapes but wish to improve their methods.

The course covers all the operations of grape-growing, from the choice and preparation of the land to the gathering of the crop. It attempts to give the student the information he needs to determine how much profit he can expect to obtain and what are the best methods for him to adopt.

The course consists of a series of lessons complete in themselves, but in order to obtain the full benefit of the lessons, the student will be obliged to do some supplementary reading to which references will be given.

# COURSE 24. CITRUS FRUITS

· Prepared by J. E. Coit, Professor of Citriculture, and I. J. Condit, Instructor in Citriculture.

The course in citrus fruits embraces sixteen lessons covering the entire subject. The text has been written especially for this course and it is to be found nowhere else. In the preparation of the text, the viewpoint has been that of the beginner rather than that of the expert and experienced citrus grower. The aim is to furnish practical information, which will help the student in the management of his grove, besides giving a broad concept of the citrus industry as a whole. Technical discussions have been avoided and the text is presented in as direct and simple a way as possible.

#### COURSE 25. OLIVE-GROWING

Prepared by F. T. BIOLETTI, Professor of Viticulture and Enology, and W. F. OGLESBY, Assistant in Viticulture.

The growing of olives has been one of the most profitable of the horticultural industries of California during recent years. This has created a marked revival of interest in the crop and stimulated extensive plantings.

Olives have been grown in California from the time of the first white settlers and at one time plantings were almost as numerous as at present. The industry has not always been profitable. Indeed, for many years the best groves barely paid expenses.

This course is intended to guide new olive growers, to point out the causes of former failures, to help growers to obtain the best results by avoiding such of the causes of failure as still exist, and to prevent any serious mistakes which might jeopardize the industry in the future.

The methods used by the most successful growers, oilmakers and picklers will be described and such suggestions for improvement made as our present knowledge permits.

### COURSE 26. FIG CULTURE

Prepared by J. E. Coit, Professor of Citriculture, and S. F. Frisselle, Superintendent of Kearney Farm.

The course in fig culture attempts to give, in brief, an account of the fig from the cutting to the full-bearing tree; its propagation, pruning, irrigation, cultivation, harvesting and soil and climatic requirements. It also gives, somewhat in detail, the history and the method of caprification of the Smyrna fig. It aims to sum up for the beginner such information as will be necessary for him to choose the proper locality, to properly plant his trees and to bring them successfully to maturity.

The course will deal with only three of the numerous varieties of the fig, but many facts and figures will, of course, have a general application. These three varieties, those most grown commercially in California, are the "Mission Fig," the "White Adriatic," and the "Smyrna or Calimyrna Fig."

# COURSE 27. HOME FLORICULTURE

Prepared by J. W. Gregg, Professor of Landscape Gardening and Floriculture.

This course is designed to furnish the individual with information concerning the propagation and culture of annuals, herbaceous perennials, bulbs, and flowering shrubs that may be grown for cut flowers or for ornamental plantings on the home grounds.

#### COURSE 28. HOME GROUND ORNAMENTATION .

Prepared by J. W. Gregg, Professor of Landscape Gardening and Floriculture.

The course in home ornamentation is designed to familiarize the individual with some of the fundamental principles of the art of landscape gardening as they may be applied in the embellishment of home grounds, and, in addition, to give information as to the best plant materials to use, their adaptation, arrangement and culture, for the purpose of producing the best effects.

# COURSE 29. RURAL PUBLIC HEALTH

Pepared by W. B. Herms, Assistant Professor of Parasitology.

This course consists of a series of lessons on location and sanitation of the home, sewage disposal, flies, malaria, disinfection, and other rural health problems of California. The health resources of this State are as vast as its natural resources and are as needful of protection and conservation as are the latter.

The material in the course will apply to the family unit on the larger or smaller ranch as well as to smaller typical rural communities. Frequently communities of five thousand or more inhabitants are rural from the health standpoint in that sewage disposal and general health supervision are defective or inadequate. Treatment of disease will not be considered,—the viewpoint is essentially preventive.

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